THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte NORMAN E. LECOMTE,
ERIC P. LARSON, and
THOMAS R. MAHER

_____

Appeal No. 96-4027
Application 08/392,663[1]

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ON BRIEF

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Before HAIRSTON, FLEMING and DIXON, ***Administrative Patent Judges***.

FLEMING, ***Administrative Patent Judge***.

DECISION ON APPEAL

This is a decision on appeal from the final rejection[2] of claims 1 through 6, 8 through 11 and 14.

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[1] Application for patent filed February 23, 1995. According to applicants, this application is a continuation of Application 08/072,193, filed June 3, 1993, now abandoned.

[2] We note the text of the final rejection is found in the Office Action mailed May 18, 1995, Paper No. 15.

Claims 7, 12, 13 and 15 have been canceled.

Appellants' invention relates to a solid state circuit controller for switching power to a load and for protecting the switch from damage due to power dissipation.

Independent claim 1 is reproduced as follows:

1. A solid state controller for controlling load current through a wire by means of a solid state switch through an input line comprising

a sealed package in which is disposed

solid state switch means serially connected to the load through a wire,

means for generating a first electrical signal proportional to the power dissipated in the wire,

means comprising an RC network for integrating the first electrical signal as a function of time providing a second electrical signal proportional to the temperature rise of the wire, the RC network comprising a resistor and a capacitor having values selected to provide a default low limit of ultimate trip and low limit of trip delay,

a current path connected in parallel with the RC network and extending outside the package to an external connecting point so that an additional RC network can be connected to the external connecting point to externally program the controller to provide a higher ultimate trip and a longer trip delay than the default low limit, and

means for comparing the second electrical signal to a reference for providing a trip to de-energize the solid state switch means when a preselected maximum temperature rise of the wire has been reached.

The references relied on by the Examiner are as follows:

Adamson et al. (Adamson)	2,977,510	Mar. 28, 1961
Cobb et al. (Cobb)	4,866,559	Sep. 12, 1989
Murphy et al. (Murphy)	4,956,741	Sep. 11, 1990

Dougherty	4,967,304	Oct. 30, 1990

Claims 1 through 6, 8 through 11 and 14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Murphy in view of Dougherty, Adamson and Cobb.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the brief and the answer for the details thereof.

OPINION

After a careful review of the evidence before us, we agree with the Examiner that claims 1, 3, 6, 8 and 9 are properly rejected under 35 U.S.C. § 103. Thus, we will sustain the rejection of these claims but we will reverse the rejection of the remaining claims on appeal for the reasons set forth ***infra***.

At the outset, we note that Appellants state on page 8 of the brief that the claims 1, 2, 4, 8, 10, 11 and 14 "are considered to be separately patentable for reasons set forth [below] in the Argument." We agree that Appellants have argued claims 1, 2, 4, 10, 11 and 14 separately. However, we note that Appellants have not argued claim 8 separately. 37 CFR § 1.192 (c)(7)(July 1, 1995) ***as amended at*** 60 Fed. Reg. 14518 (March 17, 1995), which was controlling at the time of Appellants' filing the brief, states:

> For each ground of rejection which appellant contests and which applies to a group of two or more claims, the Board shall select a single claim from the group and shall decide the appeal as to the ground of rejection on the basis of that claim alone unless a

> statement is included that the claims of the group do not stand or fall together and, in the argument under paragraph (c)(8) of this section, appellant explains why the claims of the group are believed to be separately patentable. Merely pointing out differences in what the claims cover is not an argument as to why the claims are separately patentable.

We will, thereby, consider the Appellants' claims 1, 3, 6, 8, and 9 as standing or falling together and we will treat claim 1 as a representative claim of that group.

On page 6 of the brief, Appellants argue that Appellants' apparatus and method provide a complete sealed solid state controller. Appellants further argue that there is no showing or suggestion in the cited art of a complete, sealed unit.

On page 5 of the answer, the Examiner points out that Murphy teaches that the components are within a housing in column 5, lines 29-33, as well as in column 13, line 20. The Examiner argues that the Murphy housing meets the "sealed package" limitation as recited in Appellants' claims.

Turning to Appellants' claim 1, we find that claim 1 recites "solid state controller ... comprising a sealed package in which is disposed." Murphy teaches in column 2, lines 1-12, a solid state controller with a common housing. Furthermore, Murphy teaches in column 3, lines 26-31, that "it is desirable to maximize and assemble for compactness the number of required electrical components to be associated with the circuit breaker and that can be placed within the circuit breaker housing for superior and more reliable operation." Murphy further teaches that one object of the invention is to install the current sensor DS, the power supply PS for the

tripping unit and the tripping unit TU within the housing HS. Turning to Figure 1, we find that Murphy shows by a dash line marked HS the housing of the circuit breaker. Therefore, we find that Murphy teaches a sealed package as claimed by Appellants.

Upon our review of the record, we find it important to clarify that the prior art does teach and fairly suggest having a default mode with nothing connected to the external connection points and a second mode which can accommodate different load characteristics by adding external components to extend certain values. Dougherty clearly teaches (col. 4, line 12 et. seq.) the storage of fixed points in EEPROM 29, where the external programmer 38 inputs instructions. These instructions would be to modify the curve data stored in EEPROM 29. Dougherty thereby teaches the modification of operating limits from an externally connected circuit. As set forth by the examiner, skilled artisans would have been motivated to replace the "complex Dougherty processor with a simple RC network taught by Adamson, since doing so would provide for a simpler, cheaper arrangement for adjusting time delays" (Examiner Answer, page 6).

We note that the Appellants have not argued that the Examiner's reasoning for combining references is improper. However, Appellants do argue on page 14 of the brief that the references do not suggest Appellants' provision of a sealed controller as claimed.

As pointed out above, we found that Murphy teaches a sealed package for a solid state

controller. We find that it would have been obvious to provide the solid state controller as taught by the combination of Murphy in view of Dougherty, Adamson and Cobb to be placed within the sealed package as taught by Murphy for the reasons provided by Murphy, to provide superior and more reliable operation. Therefore, we will sustain the rejection of claims 1, 3, 6, 8, and 9.

On page 12 of the brief, Appellants further argue that claims 1, 3, 6, 8, and 9 relate specifically to a controller having means or method for protecting a wire to a load, claims 4, 5 and 14 relate to apparatus for protecting a solid state switch in a controller from thermal damage and claims 10 and 11 relate to a method for protecting a solid state switch from thermal damage due to power dissipation during current limiting. Appellants further argue on page 13 of the brief that none of the references suggests protecting a solid state switch from thermal damage and in particular, none of the references suggests protecting a solid state switch from thermal damage due to power dissipation when current flowing through the solid state switch to a load is limited to a selected current.

On this point the Examiner does not appear to respond to Appellants' argument. Upon a careful review of the references, we also fail to find such a suggestion. Therefore, we will reverse the rejection as to claims 4, 5, 10, 11 and 14.

Finally, on pages 13 and 14 of the brief, Appellants argue that none of the references teaches or suggests the specific structure recited in Appellants' claim 2. In particular, Appellants argue that the

references fail to teach the current squaring structure comprising the transistor arrangement having first and second diode connected transistors with a relatively large current source connected to a fourth transistor creating a relatively constant V_{be} thereby imposing the change in the two V_{be} drops built-up across first and second diode connector transistors across the base emitter of a third transistor.

Again the Examiner has not responded to this argument. We fail to find any teaching or suggestion in the cited references of these limitations. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the reasonable teachings or suggestions found in the prior art, or by a reasonable inference to the artisan contained in such teachings or suggestions. ***In re Sernaker***, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). In addition, the Federal Circuit states that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." ***In re Fritch***, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), ***citing In re Gordon***, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). "Additionally, when deter-mining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." ***Para-Ordnance Mfg., Inc. v. SGS Importers Int'l, Inc.***, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), ***cert. denied***, 117 S.Ct. 80 (1996), ***citing W. L. Gore & Assocs., Inc. v. Garlock, Inc.***, 721 F.2d 1540, 1548, 220 USPQ

303, 309 (Fed. Cir. 1983), ***cert. denied***, 469 U.S. 851 (1984).

In view of the foregoing, the decision of the Examiner rejecting claims 1, 3, 6, 8, and 9 under 35 U.S.C. § 103 is affirmed; however, the decision of the Examiner rejecting claims 2, 4, 5, 10, 11 and 14 under 35 U.S.C. § 103 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

KENNETH W. HAIRSTON Administrative Patent Judge	)	
	)	BOARD OF PATENT
	)	APPEALS AND
MICHAEL R. FLEMING Administrative Patent Judge	)	INTERFERENCES

JOSEPH L. DIXON)
Administrative Patent Judge)

MRF/dal

RUSSELL E. BAUMANN
TEXAS INSTRUMENTS INCORPORATED
PATENT DEPARTMENT MS 20-21
34 FOREST STREET
ATTLEBORO, MA 02703